

The Role of Tracer Studies in Enhancing the Quality of Education: A Case in State Islamic Higher Education

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ABSTRACT

A key factor in creating and improving higher education quality is data and information from tracer studies, which are also alumni feedback. Nowadays, educational institutions must to generate graduates with both academic proficiency and practical work-related abilities. This study aims to determine the extent to which the role of tracer studies in improving the quality of study programs at UIN Sunan Kalijaga. The survey approach is being used in this descriptive qualitative study. It can be inferred from survey results that data and information from tracer studies can be used as a medium for quality improvement study programs at UIN Sunan Kalijaga. These indicators included aspects of lecture activities and facilities, aspects of foreign languages, aspects of learning experiences that support work, and aspects of graduate competence.

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Introduction

A Tracer study is an effort to get feedback from alumni. The data and information obtained from this feedback are useful for universities to improve and develop the quality and education system. In addition, feedback is also useful for tertiary institutions to formulate educational policies so that alumni have the competencies needed to provide life in society, especially to enter the world of business and industry. Following Bariyyah (2019) higher education institutions need to know how the quality of education is based on the results of tracer studies filled in by graduates. Thus, the distance between the campus world and the real world (community and business world) can be reduced. According to Schomburg (Schomburg H, 2003), the purpose of tracking alumni or tracer study activities is to collect relevant information and input from graduates related to the learning and working

experience experienced by graduates for the development of Higher Education. For this reason, universities must create and develop tracer studies that contain various aspects to accommodate all the information institutions need (Abana et al., 2021). Aspects that need to be present in a tracer study are alumni personal data forms, years of graduation, work or activities being pursued, and a questionnaire containing various statements related to education at the institution. In line with this, universities need technology services as a supporting tool so that tracer studies can be used optimally (Renny et al., 2013). Quality improvement can be done using quality management which includes planning, implementing, controlling, and supervising all work activities that occur in the campus environment (Fitriani & Kemenuh, 2021).

So far, universities only claim that their alumni have contributed to society, worked after graduation, and others. It is just that these claims are sometimes only based on assumptions because adequate data do not support them. As a result, tertiary institutions develop but do not make a positive contribution to efforts to overcome the problems faced by society. It can be seen from the high number of unemployed graduates, which reached 11.19 percent (www.tribunnews.com; <http://www.harnas.co>; <https://www.jawapos.com>). In general, universities are currently trying to map and improve the "attributes" of graduates, including UIN Sunan Kalijaga, as can be seen from the various innovations made ranging from academic and non-academic. Some global forces have contributed to the emergence of new attention to increasing the "attributes" or competencies of graduates. Bath et al (Bath et al., 2004) identified three factors that have influenced the increasing importance of graduate attributes: the perspective of education as a lifelong process; the focus on graduate eligibility; and the development of outcome measures to justify the quality of higher education. Then, after being traced through tracer study, there is a very high percentage of conformity between study programs and the world of work through the use of technical courses that can be used in the world of work, followed by non-technical courses in the world of work and supporting courses (Rasyid, 2018). Badiru and Wahome (Badiru & Wahome, 2016) stated that tracer study is used by universities to advance educational programs and services. The tracer study serves as a tracker of graduates, the latest information feedback from alumni is entered into the tracer study. Feedback from alumni contains a variety of information about the educational experience they gained while at a higher education institution (Cuadra et al., 2019). Pucel (1979) categorizes tracer study into 4 objectives, namely to find out: (1) the

career history of alumni; (2) current career/ job status; (3) alumni assessment of educational programs based on their work experience; and (4) evaluation by employers or peers (Bakhtiar & Latif, 2017). In addition, a tracer study can describe in detail the current profiles of alumni. Various alumni data updates such as job types, work experience, and other information can be covered in the tracer study (Buslig, 2021).

Today's university graduates do not only have the competency skills, knowledge, and abilities as the content of the formal scientific disciplines they are involved in but also have other "attributes" that may not be directly related to the formal scientific disciplines they are involved in. For example, Sharia and Law alumni become experts or work in Information and Technology, Ushuluddin and Islamic Thought students become export-import entrepreneurs, Tarbiyah and Teacher Training alumni become Non-Government Organization workers, and others. It is just that the data on alumni, both those who have attributes following the main competencies of the study program, as well as those who have "attributes" other than the main "attributes", are still quite minimal, even though the data is very useful for universities, to evaluate and formulate development institution. The importance of tracer studies is also reinforced by Accreditation Standard 9, which requires tracer studies to be carried out properly every year. Apart from accreditation purposes, the purpose of holding a tracer study is to find out alumni's assessment of study programs in terms of the learning curriculum or learning facilities obtained while studying at tertiary institutions. Therefore, the implementation of tracer studies at UIN Sunan Kalijaga is necessary to implement. as Andari, Setiawan, Windasari, and Rifqi (2021) convey that tracer studies can provide information that can be used to assess and evaluate the results of education in higher education (Shelly Andari et al., 2021). because alumni surveys or tracer study activities are very important for the development of study programs, starting from establishing the profile of the study program, determining the competence of alumni, and providing data on the suitability of the job market with the curriculum developed in the study program (Bakhtiar & Latif, 2017).

Method

This writing is descriptive and qualitative using survey methods. An alumni trace tracking study or Tracer Study is a survey of graduates conducted by universities to obtain an overview of several factors such as an overview of the competencies of graduates, an overview of the competence of the demands of the world of work or industry, 2description of

the competency gap that graduates have with the demands of the world of work or industry, being input in the development of education implementation strategies, being information for stakeholders, being one of the means for Imaging, one of the indicators of quality assurance of higher education, and providing important information for the development of higher education (Rofaida, 2019). This study seeks to uncover alumni tracking in study programs at UIN Sunan Kalijaga, with a sample of alumni Research for the last 4 (four) years (graduated in 2017-2021) spread across various regions. The Total study programs that fill the questionnaire are 13 study programs. The study programs that fill out the questionnaire include in Table 1.

Table 1. Study Programs

1. Industrial Engineering	8. Religious Studies
2. PGMI (Post-graduate)	9. Library Science
3. Islamic Education Management	10. Arabic language and literature (Post-graduate)
4. Islamic Guidance and counseling	11. Physics
5. Islamic history and culture	12. Chemistry
6. Informatics (Post-graduate)	13. Biology
7. Sociology	

The data collection tool used is a questionnaire. The questionnaire is used to obtain alumni tracking data consisting of personal data of alumni, places of work, suggestions, and feedback from alumni users. Data analysis techniques used are percentage analysis of each aspect and descriptive analysis by connecting the data obtained (Amirul, 2007). This descriptive analysis includes activities: processing data; organizing it; categorizing it; creating patterns; and linking data. Data analysis techniques used in this study are as follows: data reduction (data reduction); presentation of data (display data); and conclusion (verification).

Results

Quality improvement management requires the integration of several elements that need to be integrated. According to Saefullah, the elements of management consist of (1) Leadership, (2) people who are led, (3) goals to be achieved, (4) cooperation in achieving goals, (5) management facilities or equipment consisting of man, money, materials, machines, methods, and markets (Warisno, 2021). According to Basari, Altinay, Dagli, and Altinay (Basari et al., 2016) Education Quality Assurance is based on monitoring and assessment of various services and projects to determine educational quality standards. Tracer Study should be carried out by institutions that bridge between universities and the business world and

industry. Tracer Study needs to be done institutionally, structured, and with the right methodology to obtain measurable, accurate, and comparable results (Nugroho & Nugroho, 2018). Therefore, the main purpose of the tracer study activity is to determine or identify the quality of graduates in the world of work, while the specific objectives of the tracer study are: (1) Identify the Competency Profile and skills of graduates; (2) determine the relevance of the implementation of the curriculum that has been applied in universities with the needs of the labor market and professional development within the competence of the department; (3) to evaluate the relationship of the curriculum and studies in the department as scientific development; (4) as a contribution to the accreditation process of study programs.

In support of the research, the data obtained from the questionnaire has been given to the respondents. These data contain the answers of respondents to the questions in the questionnaire. Based on the questionnaire, these questions include: (1) How is the implementation of the lecture aspect and increasing the competence of expertise in the Study program? (2) How is the implementation of aspects of participation in research and service projects, internships, and practicum/fieldwork in the Study program? (3) What are the situation and condition of the lecture facilities? (4) How is the Study Program's contribution to students' foreign language mastery? (5) How is the preparation of the Study Program in preparing prospective graduates to find work? (6) How is the learning experience in the Study Program useful to support work? (7) How much the study experience in the Study Program can support the performance of graduates in carrying out their duties and work? (8) How can the study experience in the Study Program support graduates' career success in the future? (9) How the study experience in the Study Program can improve entrepreneurial skills? (10) What is the level of competence of graduates of the study program?

3.1. Aspects of Lectures and Skills Competency Improvement

In higher education, the implementation of lecture aspects in the form of delivering material in class and providing supporting materials for student interests, such as entrepreneurship and others, which aims to improve the competence of expertise in students, is something that cannot be separated. Whitehead said that a meaningful learning process can be achieved if the learning process can be stimulating, challenging, and fun so that the level of "joy of discovery" is reached (Hidayat & Yuyun Elizabeth Patras, 2013). It is due to the lecture system that makes students get more lecture material in the classroom than outside the classroom. However, some materials cannot be obtained by students by simply listening to

teachers or lecturers' or the delivery of material in class. The survey results show that implementing lecture aspects and competency improvement in each study program at UIN Sunan Kalijaga is good. If associated with The Theory of Whitehead, the implementation of learning has reached the level of "joy of discovery" expected, then the implementation of lectures can provide provisions to students whose output follows the profile of graduates. The process of delivering material in a lecture or learning process is closely related to the surrounding environment. The surrounding environment influences the learning process for students through social processes and discourse practices in understanding how these meanings are continuously built, negotiated, and achieved within the scope of interaction (Green & Claire, 2007). Thus, learning that is not interesting and not by the rules or the applicable curriculum can cause students to be reluctant to follow it so that the "joy of discovery" is not achieved and causes the failure of the formation and improvement of competency skills in students.

3.2. Aspects of Participation in Research and Service Projects, Internships and Practicums

After students can adjust to their majors, students need to develop their potential Based on data from all study programs that have filled out questionnaires, implementation of participation in research and service projects, internships, and practicums/fieldwork in study programs, most study program students have participated and participated in developing and improving competencies through research project participation and internships. The implementation of the research project and internship program of the study program also went well, even though some things were not following or less following previous expectations and plans.

Criteria that indicate that the implementation of participation in research and service projects, internships, and practicums/fieldwork in the study program has been running well are the number of students who participate both in research and service projects and internships and practicums/fieldwork. In addition, the implementation based on the curriculum also shows results that follow the achievement targets that students must achieve. The criteria that indicate that the implementation of participation in research and service projects, internships, and practicum/fieldwork in the study program is still less appropriate, which is influenced by things such as the lack of adequate research labs so that the research project to be done becomes constrained, then there are study programs that are still minimal participation from students or lecturers related to research and service projects, internships

and practicum/fieldwork in the study program. So, based on the data that shows the lack of maximum implementation of participation in research projects and services, internships and practicum/fieldwork in the study program get some input as a proposal to improve the development of the study program, namely increasing the provision of facilities in the form of research labs for the sake of research.

3.3. Situation and Condition of Lecture Facilities

Adequate lecture facilities are very useful and much needed to realize a good and maximum learning process both from the side of students and lecturers as university teachers so that the expected targets and competencies can be achieved and realized. Facilities such as libraries and health care facilities at UIN Sunan Kalijaga are centralized in a complex of buildings. So that each study program utilizes facilities such as libraries and health services available at the University. It differs from other facilities such as information and Communication Technology Support, study rooms, laboratories, and student activity centers, all provided by each study program at UIN Sunan Kalijaga.

Based on the data obtained, the situation and condition of the facilities in the study program are good and feasible to be used both in the learning process and in activities that support research. However, of the many facilities that are good, adequate, and feasible to use, some facilities are inadequate, so students or lecturers who want to access these facilities become constrained. The facilities of most study programs are constrained by internet or wifi network facilities that are slow and often disconnected or error. Internet networks are slow and often disconnected, and errors disturb students and lecturers in the learning process. In addition to the internet network, other inadequate facilities, such as the postgraduate Informatics study program lab, which is inadequate for post-graduate research interests, and less comfortable study space in Sociology study programs

3.4. Contribution to Foreign Language Mastery of Students

Based on the data obtained, the study program greatly contributes to students' and lecturers' mastery of foreign languages. The contribution in this case is in the form of providing foreign language material in one of the lecture materials or study program curriculum. In addition to providing foreign language courses, the study program also organizes foreign language training where the target of this training is students. Moreover, some study programs also form language-based communities and language courses, such as the Islamic Cultural History Study Program, which forms a language community based on historical source languages, and the Islamic Education Management Program, which adds

English courses for lecturers and students, especially students who enter international pilot classes. The importance of the use of English is not seen in how many people speak English but more emphasis on what the language is used for. In addition, English is also designated as an international language in various fields such as Science, Information Technology, business, and international communication (Kusuma, 2019). Mastery of foreign languages is important in addition to mastering the legal national language in this context Indonesian (Handayani, 2016).

3.5. Preparation in Preparing Prospective Graduates

Higher education is a kind of place to prepare or place 'training' to create human resources ready to face the world of work. However, the rapid changes and dynamics that occur in the world of work require universities to participate actively and dynamically and be able to compensate and pursue the dynamics that occur in the world of work (Sitepu, 2019) Based on the data obtained by the researchers, the preparation of study programs in preparing graduates to face the world of work is done through several ways, namely: (1) evaluation of graduate absorption; (2) periodic curriculum updates; (3) conducting training and debriefing to prospective alumni; (4) establishing cooperation with prospective graduate user partners. The method used by the study program in preparing prospective graduates to be ready to face the world of work at least includes and follows the exposure in the previous discussion. Therefore, it is important to build a career development center and develop a partnership system in Tridharma Perguruan Tinggi with academic institutions, industry, and government both at home and abroad and conduct regular reviews on the implementation of such cooperation (Hedwig & Polla, 2006).

3.6. The Benefits of Experiential Learning in Supporting Employment

In supporting graduates when faced with the world of work, the learning experience in the Study Program should also provide provisions to students so that students have preparation, provision, and knowledge that will be very useful for implementation in the world of work. One of the important things is how to make study programs a place for students to develop themselves to have great support for students. To improve education quality, educational institutions must be more proactive and focus on solving these quality problems. The study Program, as one of the means of education in higher education has the responsibility to support improving the quality of education by conducting several methods and models to create change. It is done to improve the educational process's quality, accompanied by efforts to increase its relevance in global competition. Therefore, the study

program must evaluate alumni performance through a tracer study, one of which is to obtain user input.

Based on the questionnaire respondents have filled out, researchers get results related to how the benefits of learning experience in the Study Program can support graduates' work. The benefits of learning experience in the Study Program can support the work of its graduates is quite large. Students benefit from the learning experience in the Study Program by providing material or elective courses that match the profile of graduates who are interested in students. With the provision of science according to the curriculum that is prepared based on the needs of the world of work, it can provide students with at least provisions or knowledge as the first step that must be taken before entering the world of work. Although the ability of the Study Program to support graduates in the world of work is quite large, some shortcomings must be addressed. Some study programs mentioned that the support of study programs is still not optimal and needs to be increased to debriefing about career interests for students.

3.7. Ability to Support the Performance of Graduates in Carrying Out Their Duties and Work

Education is the most important thing in our lives because education is a learning process about knowledge and skills that can be done anywhere. Education can be obtained for everyone, starting from small to Old. Education is also very important for everyone who aims to educate and develop their potential.

The Study Program's role in supporting graduates' performance in carrying out their duties and work is not much different from the previous sub-discussion. The respondents' results and answers to the questionnaire indicate that the study program's ability and role in supporting graduates' performance in carrying out their duties and work is quite large by showing good grades in each field or study program. It is supported through the method of delivery of material and the method of tasks. Every step has been equipped with ways and tools provided through lectures that will greatly support the task and work. So, most or most graduates are absorbed according to the profile of graduates. It proves that the learning experience in the study program is good for improving general and special competencies as well as general skills and special skills that support the implementation of work in the world of work. However, some things can be improved to produce graduates with maximum performance in carrying out their duties and work. These things are included in relatively general or general evaluations, such as improvements related to debriefing interests and

careers to students. In addition, the material contained in the course also needs to be updated continuously and adjusted to the existing job market.

3.8. Ability to Support Graduates Future Career Success

According to field data obtained at the state Islamic University of Yogyakarta, the study program's level is considered to have provided much competence as a form of readiness to face the world of graduates after graduation. For example, in the chemistry study program, the study experience in the study program strongly supports the careers of graduates. Some chemistry graduates (13.53%) work as entrepreneurs, such as CV Zirconia in General Trading and contractors, PT Sinergi Brebes Inovatif in food, CV. Cetar Group in the field of food, and others. In addition, some chemistry graduates are also engaged in various fields, such as political party activists, NGOs, extension workers/volunteers, preachers, and others. Some other alumni (7.95%) continue their education at home/abroad, such as at Erciyes University, Turkey; Wuhan University, China; Sirindhorn International Institute of Technology, Thailand; Thammasat University Thailand; Gadjah Mada University, University of Indonesia, Bandung Institute of Technology, and various other campuses.

However, the success achieved by the study program is not without record. Several important points need to be considered and improved, including the lack of a Career Interest briefing held by the study program to identify and later facilitate and direct the graduates following their interests and fields. In addition, some study programs have not conducted a survey or career data collection of their graduates. It is as if the study program is just hands-off to the future of the students who are or have been studying at the institution, and more or fewer study programs should take a role in this regard.

Thus, the role of tracer study is increasingly important because it can provide important information for the development of Higher Education, Act as a tool for evaluating the relevance between higher education and the world of work, and can be a useful input for graduates to improve competence. For stakeholders, the tracer study results can be the basis for consideration in the selection of the desired college (Rofaida & Gautama Budhi Pamungkas, 2019).

3.9. Ability to Improve Students Entrepreneurial Skills

In improving students' entrepreneurship skills, the data obtained by researchers from the answers or questionnaires that have been given states that the Study Program can encourage and motivate students to increase their interest and entrepreneurial skills. It is obtained through several learning models applied from each existing Study Program. The

learning models to improve students' entrepreneurial skills study program provides materials and courses on entrepreneurship. In addition to providing material or theory in the classroom, the Study Program also provides facilities for understanding to students through activities such as public lectures on entrepreneurship, entrepreneurship training, and others related directly or indirectly to entrepreneurship. The reason that needs to be considered in entrepreneurship is a certain economic goal to find other or additional income, social reasons or prestige, reasons for service, or reasons for the fulfillment of self-existence as an entrepreneur (Prasetyo & Sumarno, 2016). Furthermore, Agus Wibowo (Wibowo, 2021) said that " entrepreneurship can be generated from learning by doing. The statement provides a condition that in entrepreneurship education it is not enough to learn by delivering material related to theory alone, but must also be accompanied by practice in the field.

3.10. Graduates Competency Levels

Based on the data obtained by researchers, the level of competence of graduates of the respondents is at a good level. The fulfillment of all competencies in each field of study program characterizes it. The best competence, among other competencies, is ethical competence. It shows that in the learning experience in the Study Program, ethics is a highly emphasized competence to produce graduates with a very good level of ethical competence. However, some competencies need more attention to be improved. The competence in question is the competence of student expertise. Students ' skill competence is still at a fairly good level even though several study programs are at a very good level of skill competence. Such as the Chemistry study program example, a survey of graduate users showed that the value of the main competence showed specific skills that fall into the category of very good 70.4% and good 25.9% so although in some skill competency, the Study Program does not show much significance. However, some other study programs showed that the level of competence of graduates ' skills is very good. Therefore, effective institutions require purposeful and robust strategies to achieve competitive outcomes. education requires a process to develop its quality strategy, which includes a clear and distinctive mission, Customer Focus, a clear, strategy to achieve the mission, the involvement of all customers, both internal and external, in developing strategies, empowering staff by eliminating obstacles and helping them in making maximum contributions to the educational institution through the development of effective working groups, as well as assessment and evaluation of the effectiveness of the institution in achieving customer-related goals (Supadi, 2011).

Conclusion

Tracer study becomes a medium to confirm the effectiveness of the services provided by the college. Quality education will always be improved and provide the best to create alumni or graduates who can be accepted by the community and the business world and industry. Indicators of college success can be known through the results of a tracer study with several indicators that have been determined. The results of this study indicate that aspects of activities and lecture facilities, foreign language aspects, aspects of learning experiences that support work, and aspects of graduate competence, can support graduates. Thus, tracer study can be a medium to measure success and can improve the quality of universities, especially some study programs within UIN Sunan Kalijaga.

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